The female is larger and apparently more robust than the male, as is the case with some other species of *Notonecta*.

Massachusetts and Florida: coll. Uhler. Massachusetts: British Museum. Massachusetts: Montandon's coll.

I have great pleasure in dedicating this handsome and remarkable species to the illustrious American Rhynchotist, to whose labours for the past forty years we are indebted in such large measure for our knowledge of, amongst other things, the North-American aquatic Rhynchota.

N. Uhleri is at once distinguished by the very peculiar form of the head and eyes, as above described; it is doubtless not uncommon over a large area of the United States.

N.B.—In connexion with the above descriptions it may be as well to remark that, contrary, perhaps, to the usage of some entomologists, I have used the word "transverse" in the sense of being *wider than long*: some rhynchotists, also, appear to use the word "*vertex*" as the equivalent of the *whole dorsal surface of the head* (excluding the eyes); I have restricted the term to the *apparent* (as seen from above) *apical margin of the head*; the head, moreover, will be found to be narrowest in most *Notonectæ* not *at* the base, but a trifle above it, between the postero-interior ocular angles in fact.

Summary.

Diaprepocoris, gen. nov.
D. barycephala, sp. n. Australia.
Corixa eurynome, sp. n. Australia.
—— *australis*, Fieb. Additional description.
—— *subjacens*, Walker. } Probably MSS. names.
—— *lacustris*, Stephens. } Probably MSS. names.
—— *rivalis*, Stephens. } Probably MSS. names.
Nepa minor, Walker. } Probably MSS. names.
Corixa caledonica, nom. nov. for *C. cognata*, D. & S. (preoccupied).
Notonecta Montandoni, sp. n. China.
—— *lactitans*, sp. n. West Central Africa.
—— *Uhleri*, sp. n. North America.

VII.—*New Cyclostomatous Bryozoa found at Madeira.*

By James Yate Johnson, Corr.M.Z.S.

Tubuliporidæ.

Alecto simplex, J. Y. Johnson.

A very slender adnate thread, from the upperside of which rise the erect elongate cells in a single series. The adnate

stem is scarcely wider than the erect cells; it rarely divides dichotomously at the point where a cell arises, and it has not been seen to anastomose. The cells taper slightly upwards, are wrinkled transversely, and their mouths are circular. They are sometimes further apart, sometimes nearer each other, than the distance between them. Surface with white scattered granules. Oœcium not observed.

This form seems to differ from *A. granulata*, H. M.-Edw., of which a figure is given in Mr. Busk's Cat. Cyclost. Pol. B. M. pl. xxxii. fig. 1, where the adnate stem is represented as much thicker than the cells.

Horneridæ.

Hornera pectinata, Bk.

This rare bryozoon was shortly described by Mr. Busk in the Micr. Journ. for Jan. 1861, vol. i. (n. s.) p. 79, pl. xxxiii. figs. 4–6, and again in his Cat. of the Cyclost. Polyzoa B. M. from a specimen sent by me to him many years ago. A few perfect specimens having since occurred, I am able to give a fuller account of the species and to describe the oœcium, not hitherto known.

Colour greyish. Base spreading, trunk usually short and thick; branches terete, strong, extending fan-like, subpinnately, or irregularly; ultimate branches tapering. Anterior surface pierced by numerous oval pores, which are sunk in depressions and have slightly raised borders. Between the pores the surface is irregularly ridged. The pores on the dorsal surface are larger and are partially filled up inside. The ridges are here more distinctly pronounced, and are sinuous, meeting and separating so as to form a reticulation. The peristome is minutely dentate. The oœcia are dorsal, brownish, semiglobular, and the surface is thickly set with warts, each of which has a depression at the top with a perforation therein.

Three specimens were found on calcareous worm-cases attached to a Lithistid sponge (*MacAndrewia* or *Corallistes*). The largest specimen had a height of 21 millim. and a spread of 26 millim.

Diastoporidæ.

Diastopora catillus, J. Y. Johnson.

Zoarium circular or elliptical, seated on a thin calcareous base; the margin vertical. Centre cupped, the younger deeply so, with scarcely any free area; surface finely granular.

The radiating series of connate or partially free uniserial tubular cells are of different lengths; some begin at the centre and extend to the top of the vertical marginal wall, others are irregularly shorter. The innermost cells are very short, with oblique elliptical mouths, and some of them are free. The higher cells towards the margin have circular horizontal simple mouths. The walls of the cells and the spaces between them are transversely rugose. The margin of the zoarium rises steeply from the basal plate, and this boundary wall is entirely composed of the mouths of immersed cells to the number of four in a vertical series. Oœcia not observed.

This species is common on shells from deep water. The longer axis of the largest specimen I have seen measures 7 millim., excluding the basal plate, but the majority of my specimens are much smaller. In colour the younger ones are white, the older brownish.

Diastopora pulchella, J. Y. Johnson.

Cells distinct, erect, highest at the centre, gradually shorter towards the margin, which is low and thin; disposed quincuncially; mouths round, horizontal, simple. No adventitious tubules. Oœcia large, embracing several cells, inflated, semiglobular, finely granular, and punctate. Zoarium white hyaline.

The largest of my few specimens has a diameter of 3·5 millim. Three of them in beautiful condition are inside the valve of a *Lima*; others are on seaweed.

Lichenoporidæ.

(*Discoporellidæ*, Bk.)

Lichenopora spinata, J. Y. Johnson.

Zoarium circular, on a thin calcareous base, elevated, almost cylindrical, slightly concave at the centre. Cells distinct, uniserial, higher at the inner end, in radiating somewhat irregular series, long and short, four to six in a series. Mouths with four or five spines. In the vertical exterior wall are seen the mouths of about six immersed cells piled one above another. Central area studded with numerous spines and pierced by circular or suboval pores, the latter round at one end, angular at the other, the larger pores often partially filled up within. Surface of central area finely granular and punctate. One or two spines project horizontally from the lower part of some of the inner cells.

Between the radiating series of cells are one or two rows of pores.

A few examples of this small species were found upon a halichondrine sponge (*Petrosia*) which came from deep water off Madeira. The largest had a diameter of no more than 3 millim. Its place seems to be near *Lichenopora* (*Discoporella*) *fimbriata*, Bk. (Cat. Cyclost. Pol. B. M. p. 32, pl. xxvii.).

Radiopora irregularis, J. Y. Johnson.

White or brown, seated on a thin calcareous lamina. The zoarium usually consists of a central portion, around which extend subtriangular lobes, irregular as to their directions and relative sizes, but frequently giving to the whole something of the appearance of a starfish, such as *Asterina*, with short broad rays.

The central portion of the zoarium is raised and cupped, and the circumambient ridge is crossed by radiating series of upright connate cells. A depression runs along the middle of each exterior lobe, but stops short of the margin of the zoarium. Numerous series of cells are arranged at right angles to the median depression, and at the distal end of the lobe the series of cells radiate from the end of the furrow towards the margin.

The cells are upright, connate, and invariably form a single series. They are highest near the central cup and the depressions of the lobes; they gradually fall in height until they become immersed, and their mouths alone are shown at the margin of the zoarium. The mouth of the upright cells is prolonged into a mucro on the distal side, and sometimes on the opposite side also when the upper part of the cell is distinct. Round or oval pores varying in size occupy the central area and the lateral furrows. Between the series of cells there are two or three rows of pores.

There is much irregularity both as regards the outline and the superficies of this species: for instance, there are sometimes more intramarginal cups than one; at others there is no central cup at all; in some cases the central cup contains a short detached series of erect cells; a series of cells occasionally throws off a branch series or more than one.

The largest specimen I have seen has a diameter of 10 millim. This species has been found on seaweed and on *Pinna* shells, but the best examples were attached to the outside of a wine-bottle dredged in Funchal Bay.

From the above description it seems that Mr. Busk's definition of the genus (Cat. Cyclost. Polyzoa Brit. Mus.

p. 34) needs a little modification by the addition of the following clause at the end :—" or in lines extending at right angles to the direction of their elongate lateral troughs."

Frondiporidæ.

Frondipora maderensis, J. Y. Johnson.

Shortly stipitate, irregularly ramose; branches sometimes upright, usually spreading laterally and curving retrorsely, rarely meeting and uniting. The ultimate branches (tertiary or quaternary) are short and lobe-like.

The fasciculate cells open at the truncate ends of the upright branches and lobes; the orifices extend along the upperside of the lobes, but are not continued upon the branches. The orifices are pentagonal, and smaller ones are intermixed. The smallest lobes have only from one to three orifices; on others the orifices are seen in two connate series.

The branches are subtriquetrous, *i. e.* they are broader at the front than at the back. The anterior surface is obscurely granular; the posterior surface is faintly wrinkled transversely and is finely punctate reticulately. When fresh from the sea the zoarium is coloured a pale yellow, which fades to white.

The largest of the specimens rises vertically but a short distance above its base, and then spreads laterally 39 millim. in one direction and 27 millim. at right angles thereto. All the specimens, which have been many years in my possession, were either attached to dead individuals of the coral *Madracis asperula*, M.-E. & H., or were seated on sponges so attached. This coral is found in deep water off the coast of Madeira.

Reference may be made to Mr. Busk's figures of *Frondipora palmata*, Bk. (Cat. Cyclost. Pol. B. M. pl. xx. figs. 4, 5). The describer was not certain as to the locality from which his specimens came, but he believed they were brought from Australia.

The species now described differs from *F. palmata* in these respects :—(1) the fasciculi of orifices are not continuous along the branches, but are confined to the ultimate lobes; (2) the orifices do not open upon a raised portion of the horizontal branch or lobe, but open at once on the front of the lobe or at the ends of the upright branches; (3) Mr. Busk's fig. 5 represents the branch between the lobes with a pitted surface. In the new species no part of the branch is visible between the lobes, the front of the branches and lobes being, as stated above, broader in front than behind. No part of the zoarium has a pitted surface.

If this species is admitted into the genus *Frondipora*, Mr. Busk's definition of that genus should be modified thus :— Zoarium pedunculate ramose; fasciculi opening only on one side, or at the ends, of the branches.

VIII.—*On Lepidoptera Heterocera from China, Japan, and Corea.* By John Henry Leech, B.A., F.L.S, F.Z.S., &c. —Part II. *Family* Geometridæ; *Subfamilies* Œnochrominæ, Orthostixinæ, Larentiinæ, Acidaliinæ, and Geometrinæ.

[Continued from vol. xix. p. 679.]

Genus Eupithecia.

(Curtis, Brit. Entom. vi. pl. lxiv. (1825).)

Eupithecia proterva.

Eupithecia proterva, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 445 (1878); Ill. Typ. Lep. Het. iii. p. 52, pl. liv. fig. 1 (1879).

A nice series from Yokohama in Pryer's collection.
Hab. Japan.

Eupithecia signigera.

Eupithecia signigera, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 442 (1879).

Specimens from Yokohama and Gifu in Pryer's collection.
Hab. Japan.

Eupithecia caliginea.

Eupithecia caliginea, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 445 (1878); Ill. Typ. Lep. Het. iii. p. 52, pl. liv. fig 2 (1879).
Eupithecia zibellinata, Christ. Bull. Mosc. lv. (2) p. 117 (1881).
Tephroclystis zibellinata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 66.

There were three specimens in Pryer's collection.
Distribution. Amur; Japan.

Eupithecia castigata.

Geometra castigata, Hübn. Geom. fig. 456.
Tephroclystis castigata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 66.

There were four specimens (one male, three females) in Pryer's Japanese collection. My native collector obtained the species at Nikko, and I have received it from Pu-tsu-fong, where specimens were taken in June.

Distribution. Europe; Amur; Japan; Western China.